

In the Claims:

Please amend the claims as follows:

1. (currently amended) A control system for controlling the movements of a plurality of mechanical units, the control system comprising:

a program ~~means~~ unit comprising a plurality of mechanical unit programs, each mechanical unit program comprising program instructions including movement instructions for at least one of said mechanical units,

a plurality of path planners operatively connected to the program unit and to the mechanical units, each path planner adapted to receive movement instructions from at least one of said mechanical unit programs and on basis thereof based on the movement instructions determine how the mechanical unit should move in order to be able to execute the movement instruction, instructions, wherein at least one of said path planners is adapted to receive movement instructions from at least two of said mechanical unit programs and on basis thereof based on the movement instructions determine how the mechanical units should move in order to synchronize their movements of the mechanical units, and

a switch unit operatively connected to the program unit and the path planners, the switch unit being switching means adapted to switch a mechanical unit program from one path planner to another path planner, whereby such that the movements of the mechanical units are synchronized when their the mechanical unit programs are connected to the a same path planner and the movements of the mechanical units are independent when their the mechanical unit programs are connected to different path planners.

2. (currently amended) The control system according to claim 1, wherein each mechanical unit program is connected to one of said path planners, and wherein said switching means switch is adapted to upon command disconnect the mechanical unit program from the connected path planner and to connect the mechanical unit program to another path planner.

3. (currently amended) The control system according to claim 1, further comprising:
a central data storage means and unit operatively connected to the mechanical units,
wherein at least one of said mechanical units unit is arranged to transmit data concerning its a position and/or a status of the at least one mechanical unit to the central data storage means unit.

4. (currently amended) The control system according to claim 3, wherein said at least one mechanical unit is arranged to transmit position and/or status data to the central data storage means unit when it the at least one mechanical unit is stationary i.e. when it has stopped moving.

5. (currently amended) The control system according to claim 3, wherein said at least one mechanical unit is arranged to transmit position and/or status data to the central data storage means unit while it the at least one mechanical unit is moving to a new location.

6. (currently amended) The control system according to claim 4, wherein said position data comprises information concerning the a displacement and/or a rotation of a coordinate system of said at least one mechanical unit's coordinate system unit.

7. (currently amended) The control system according to claim 3, wherein the central data storage ~~means~~ unit is arranged so that data stored therein is accessible by an operator, a mechanical-unit program or the path ~~planning~~ means planners.

8. (currently amended) The control system according to claim 3, wherein the central data storage ~~means~~ unit is arranged so that data stored therein is accessible via a network ~~such as the Internet~~.

9. (currently amended) A method for controlling the movements of a plurality of mechanical units, the method comprising:

storing in a program unit a plurality of mechanical unit programs, each mechanical unit program comprising program instructions including movement instructions for one of said mechanical units,

connecting said program unit and said mechanical unit programs to a plurality of path planners so that at least two of the mechanical unit programs are connected to different path planners, wherein each of said at least two path planners receives instructions from the connected mechanical unit program and based on the movement instructions on basis thereof determines how the mechanical unit should move in order to be able to execute the movement instructions of the program, and

switching at least one of the mechanical unit programs to another path planner so that more than one of the mechanical unit programs ~~are is~~ connected to ~~the~~ a same path planner, which receives instructions from the connected mechanical unit programs and based on the received instructions on basis thereof determines how the mechanical units should move in order

to synchronize their movements of the mechanical units.

10. (currently amended) The method according to claim 9, further comprising:
connecting each mechanical unit program to one of said path planners, ~~and~~
upon command disconnecting at least one of the mechanical unit programs from the
connected path planner, and

connecting to connect the mechanical unit program to another path planner.

11. (currently amended) The method according to claim 9, further comprising:
storing position and/or status data from at least one of the plurality of mechanical units in
a central data storage ~~means~~ unit.

12. (currently amended) A computer program product, comprising:
a computer readable medium; and
~~containing computer program code means instructions~~ recorded on the computer readable
medium for making a computer or processor execute the steps of a method comprising
storing a plurality of mechanical unit programs, each comprising program instructions
including movement instructions for one of said mechanical units,
connecting said mechanical unit programs to a plurality of path planners so that at least
two of the mechanical unit programs are connected to different path planners, wherein each of
said at least two path planners receives instructions from the connected mechanical unit program
and on basis thereof determines how the mechanical unit should move in order to be able to
execute the movement instructions of the program, and

switching at least one of the mechanical unit programs to another path planner so that more than one of the mechanical unit programs are connected to the same path planner, which receives instructions from the connected mechanical unit programs and on basis thereof determines how the mechanical units should move in order to synchronize their movements.

13. (cancelled)

14. (currently amended) The control system according to claim 1, wherein the control system comprises Use of a control system according to claim 1 in a system comprising a plurality of mechanical units, namely comprising robots and/or external axes, which are programmed to execute at least one task where at least two of said mechanical units move synchronously.

15. (currently amended) The Use of a method according to claim 9, wherein the system comprises in a system comprising a plurality of mechanical units, namely comprising robots and/or external axes, which the method further comprising:
programming the mechanical units are programmed to execute at least one task, and
synchronously moving where at least two of said mechanical units move synchronously.

16. (currently amended) The Use of a computer program product according to claim 12, wherein the system comprises in a system comprising a plurality of mechanical units, namely comprising robots and/or external axes, which are programmed to execute and wherein the computer program instructions include executing at least one task and synchronously moving

where at least two of said mechanical units move synchronously.